Consensual Environmental Institutions: All Talk and No Action?

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Abstract: Consensual institutions that attempt to build cooperation between conflicting stakeholders are seen as a potential remedy to the pathologies of conventional environmental policy. However, few analyses have demonstrated that consensual institutions actually increase levels of cooperation, and critics accuse consensual institutions of all talk and no action. In this paper I use a quasi-experimental design to compare the levels of consensus and cooperation in coastal watersheds with and without U.S. EPA's National Estuary Programs, one of the most prominent national examples of consensual institutions in the environmental policy domain. Using panel survey data from over 800 respondents, I show that while the level of consensus is higher in NEP estuaries, there is no difference between NEP and non-NEP estuaries in the level of cooperation. I conclude that Murray Edelman's concept of symbolic policy may be a useful theoretical tool for understanding this disjuncture between consensus and cooperation.

Consensual Environmental Institutions: All Talk and No Action?

Beginning in the early 1980s with the emergence of negotiated rulemaking (Langbein and Kerwin 2000; Coglianese 1997) and ecosystem management (Yaffee et. al. 1997) as prominent methods of decision-making, environmental policy has witnessed a flood of policy innovations that can be broadly defined as "consensual" institutions. The hallmark of consensual institutions is an attempt to encourage consensus and cooperation among the multiple actors with some political, economic, or administrative stake in policy outcomes.   Consensual institutions emerged from dissatisfaction with the adversarial, command-and-control style of governance embodied by conventional environmental policies, which have left many environmental problems unresolved while at the same time inflaming large amounts of costly legal and administrative conflict (Fiorino 1999; Kagan 1999). Consensual institutions of some type are now operating in almost every federal agency and many state agencies involved with environmental policy, as well as agencies dealing with other policy issues.

Yet, there is still hot debate about the ability of consensual institutions to actually build consensus, encourage cooperative behavior, and improve environmental outcomes (Kenney 2000b).   Some studies hail consensual institutions as the answer to many of the pathologies of adversarial policy (John 1994; Marsh and Lallas 1994; Weber 1999). Others argue consensual institutions are at best a passing administrative fad, and at worst guilty of all talk and no action: the consensual process leads to favorable changes in attitudes and social relationships, without the subsequent behavioral changes in levels of cooperation that are necessary to improve environmental outcomes (Kenney 2000a, b). If process is the product, then consensual institutions may actually do more harm than good by creating perceptions of progress in the absence of any real change, thereby reducing the expressed political demand for consensual institutions without addressing the environmental and social conditions that generated the demand.

Take for example the research of one prominent species of consensual institutions, negotiated rulemaking. Negotiated rulemaking, by providing a forum for building consensus between competing interest groups, is designed to reduce the conflict and delays of the conventional notice-and-comment rulemaking process as established by the Administrative Procedures Act of 1946. Langbein and Kerwin's (2000) comparison of negotiated and

conventional rulemaking at EPA finds that participants in negotiated rulemaking report higher levels of satisfaction with the outcome and process. Coglianese (1997), on the other hand, finds that negotiated rulemaking at EPA reduces delays only modestly if at all, and may even be subject to more litigation than conventional rulemaking. At least on the basis of this limited evidence, negotiated rulemaking appears at risk of a disjuncture between promise and performance—a disjuncture that may generalize to other species of consensual institutions as well.

In this paper, I examine the debate by outlining two theoretical perspectives, one that corresponds to the proponents of consensual institutions, while the other comports with the critics. The optimistic theoretical perspective is the political contracting framework of neoinstitutional economics (Eggertsson 1990, Libecap 1989; Ostrom 1990, 1999). The political contracting perspective views consensual institutions as a specific type of collective-choice arena in which stakeholders attempt to agree upon mutually advantageous policies. Potential policy agreements are contracts, and the contract development process is often hindered by transaction costs, which can be categorized into informational, negotiation, and enforcement phases of contract development (Heckathorn and Maser 1987). In comparison to adversarial institutions, the main advantage of consensual institutions is their ability to reduce the transaction costs of political contracting for certain types of environmental conflicts.

Murray Edelman's (1960, 1964, 1971) concept of symbolic policy provides the pessimistic view of consensual institutions. Symbolic policies occur when government programs fail to produce tangible changes in behavior and resource allocations, and instead consist of symbols connoting the suppression of some threat to the supporters of the policy. Under certain necessary conditions, symbolic policies lead to the disjuncture between promise and performance that critics often attribute to consensual institutions. The consensual institutions analyzed in this paper have many of the necessary conditions for symbolic policies identified by Edelman.

I use another species of consensual institutions, called watershed partnerships, as the empirical setting to explore these theoretical perspectives. Kenney et al. (1999) define watershed partnerships as:

> A primarily self-directed and locally-focused collection of parties, usually featuring both private and intergovernmental representatives, organized to jointly address water-related issues at the watershed level or a similarly relevant physical scale, normally operating outside of traditional governmental processes or forums, and typically reliant

on collaborative mechanisms of group interaction characterized by open debate, creative in problem and solution definition, consensus decision-making, and voluntary action.

Proponents argue that the consensual governance style of watershed partnerships is superior to command-and-control institutions for solving the complex problems that occur at the level of local watersheds and ecosystems.   In particular, I examine survey data from a panel survey of over 800 stakeholders from 12 estuaries with and 10 without the USEPA's National Estuary Program (NEP), which is one of the most prominent national examples of a watershed partnership.[1] According to the political contracting perspective, the consensual governing style of the NEP reduces the transaction costs of cooperation among stakeholders embroiled in watershed-scale environmental conflicts, and thus should increase levels of agreement *and* cooperative behavior. Symbolic policy, on the other hand, would argue that while stakeholders may report a greater level of agreement, agreement would not actually be followed by behavior. The next section discusses in more detail how these two theoretical perspectives apply in the context of watershed conflicts.

Watershed Conflicts, Transaction Costs, and Symbols

The political contracting framework identifies the types of conditions under which consensual institutions should be effective at producing consensus and cooperation. Similarly, symbolic policy identifies the conditions under which there should be a divergence between words and deeds. A strong argument can be made that watershed conflicts meet the criteria for both theories. Fortunately, it is possible to empirically distinguish which theory is more plausible because they offer competing hypotheses about whether or not the National Estuary Program will actually produce an increase in cooperative behavior, and not just an increase in the level of consensus.

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[1] Established under Section 320 of the 1987 Clean Water Act Amendments, the NEP is a model for watershed partnerships. States nominate estuaries for inclusion into the NEP; there are currently 28 NEP estuaries around the country. For those estuaries that meet EPA criteria, the EPA signs an agreement with the nominating state(s) that authorizes the formation of a Management Conference consisting of private and public stakeholders from all levels of the federal system. The Management Conference is a collaborative 3-5 year planning process that brings all these actors together to produce a Comprehensive Conservation Management Plan (CCMP). The CCMP identifies estuary problems, the policy actions needed to address those problems, and in many cases the public and private stakeholders who are expected to implement the policies.   There is usually an extensive period of fact-finding involving factors of concern to different stakeholders. The decision rules tend to be relatively consensual. Face-to-

Watershed Conflicts and Transaction Costs

As discussed earlier, the political contracting perspective views consensual institutions as a particular type of collective-choice institution in which stakeholders search for mutually beneficial policy agreements. In turn, the transaction costs of developing political contracts will be lower when there is a good match between the structure of collective-choice institutions and the structure of the political transaction at hand. The logic of this argument is derived from Williamson's (1975, 1985) comparative institutional analysis, which argues hierarchical governance institutions reduce the transaction costs of certain types of economic exchange (e.g., asset specific transactions), while market institutions have lower transaction costs for other types of exchange.

Two types of institutions constitute the relevant comparison in this analysis, the new consensual institutions and the adversarial (i.e., command-and-control) institutions that have been the traditional form of environmental policy since the 1970s. Consensual institutions like the NEP structure the political contracting process in a particular way: they feature inclusive stakeholder participation; produce policies specialized for a particular situation; and rely on voluntary compliance. In contrast, adversarial institutions limit the scope of participation, produce standardized rules, and rely on coercive penalties for implementation (John 1994; Lubell 2002b; Lubell et al. 2001; Marsh and Lallas 1995; Weber 1998).

Proponents argue the structure of consensual institutions is better suited to the characteristics of watershed conflicts than adversarial institutions, and thus reduces the transaction costs of political contracting. Watershed and other ecosystem-scale problems span administrative/political boundaries, affect multiple environmental media (e.g., air, land, water), and have complex cause-effect relationships with often delayed/invisible environmental responses (John 1994; Marsh and Lallas 1995). The inclusive style of the NEP addresses boundary-spanning problems by reaching out to stakeholders previously confined to isolated subsystems, providing them the opportunity to interact, share information, pool resources, and integrate otherwise redundant or fragmented policies (Rabe 1986).[2] Specialized institutions

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face negotiations normally take several years to negotiate the overall plan. But implementation of specific aspects of the CCMP is normally left to specific member agencies.

[2] One possible objection to this conjecture is that by including a broader range of stakeholders and addressing a more complex set of issues, the NEP actually raises transaction costs. This may be true in the short-term—many NEP participants complain about the extra time spent at meetings and the slow pace of consensus building. To counter this objection, proponents of consensual institutions argue the consensus process discovers previously

recognize the site-specific nature of estuary problems and thus take into account marginal differences between resource users in terms of environmental protection costs and effects on estuary health. Because there are no legal requirements for participation or implementation, the NEP implementation game depends on voluntary cooperation on the part of both government agencies and private interests. In theory, cooperation relies on self-enforcing norms of reciprocity and trust, which should reduce the monitoring and enforcement costs normally associated with environmental compliance (Axelrod 1984). The voluntary nature of the program also allows policy-makers to encourage sustainable behavior among actors who are outside the jurisdiction of existing regulations, like homeowners or landowners who cannot be forced by any existing adversarial policy to implement environmentally sustainable practices on private property.

If the political contracting framework is correct, NEP stakeholders should not only perceive greater levels of consensus on a range of policy issues, but should also engage in more cooperative behaviors. I will assess this hypothesis by estimating difference between NEP and non-NEP stakeholders on both perceived consensus and reported cooperation by individual stakeholders.

Watershed Conflicts and Symbolic Policy

Edelman argues there are three necessary conditions for symbolic policy. First, there must be a threat to the welfare of some group. In the case of watersheds, the threat comes from the continuing water quality and habitat destruction problems described earlier. The group being threatened is the broad community with some economic or political stake in the condition of natural resources; this community may include both government and non-governmental actors. As Edelman (1971) argues, the mobilization of both mass and elite political opinion stem from their engagement with common symbols.

Second, the threatened group is not well-organized enough to protest symbolic policies that fail to deliver. Because environmental policies often feature diffuse benefits and concentrated costs, environmental interest groups are difficult to organize in comparison to concentrated business groups (Wilson 1980). Obviously, the emergence of national

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unknown policy-solutions, increases the legitimacy of the resulting policy agreements, and creates a set of ongoing social relationships that reduces the costs of adjusting the policy contract to unforeseen contingencies.

environmental interest groups in the 1970s has challenged the generalizability of this argument. But even the national environmental movement appears to follow an issue-attention cycle: a gradual decline since 1970 in the overall level of environmental concern and activism, which has settled at a level of environmental concern higher than prior to the environmental movement and sensitive to environmental crises, but is rarely on the top of the national agenda (Downs 1970; Dunlap and Mertig 1990).[3] Similarly, while a large proportion of citizens express environmental values in public opinion surveys, a much smaller proportion actually engages in environmental behaviors (Lubell 2002). Edelman would predict exactly this type of political quiescence: people feel the environment is important and support environmental policies, but they do not follow-up with actual behavior, especially since the national government has passed so many "strong" policies.

One important objection to this argument in the context of watershed conflicts is the development of local environmental groups focused on specific local problems, for example Save the Sound in the Long Island Sound watershed in New York and Connecticut, or Tampa BayWatch in Tampa Bay, Florida. Many watershed partnerships have some type of local group associated with them, and there is often intense interaction between these groups and government officials. However, nobody has demonstrated the ability of these groups to influence policy implementation and resource allocation—they may be limited to a small set of elite activists in a community, or even contribute to symbolic policy by creating the impression that somebody is "doing something" about local problems, therefore absolving the broader community of responsibility.

Third, social psychology suggests people are more likely to latch onto symbols in uncertain and emotion-laden situations. Psychologically, Edelman argues people are more likely to rely on simplification and stereotypes in uncertain situations, where they are forced to evaluate situations in terms of preconceived beliefs rather than integrate new information. This argument is supported by theories of attitude change in social psychology, which argue that people often form attitudes on basis of heuristics and external cues when faced with cognitively challenging

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[3] However, current public opinion is much more sensitive to environmental crises and political threats to environmental policy than prior to the environmental movement of the 1960s-70s. For example, environmental groups very quickly mobilized against Ronald Reagan's attempt to use administrative powers to hamstring environmental agencies.

decisions. In uncertain and threatening situations, public policy can serve as a symbol that the threat is being alleviated.

Certainly, many watershed conflicts are complex and emotion-laden. For any given watershed conflict, for example the rapid decline of many subspecies of steelhead and salmon in the Northwest, there is often a complex mixture of natural and human-made causes (e.g. dams, warming ocean temperatures, agricultural runoff, clear-cutting, irrigation), where the links between cause and effect are often invisible, non-linear, and spread over time and space. At the same time, the loss of local natural resources stokes human passions by threatening the physical health and economic welfare of local communities. In many regions, the threatened natural resources are powerful cultural symbols—salmon and temperate rainforests in the Pacific Northwest, groundfish in the Northeast Atlantic, bayous in Louisiana, etc. This situation often leads to finger pointing among various groups, where they focus on narrow causes and avow responsibility for their own actions. Different groups also place a great value on having their "interests" taken into account, which is one the main goals of consensual institutions like the NEP.   In short, consensual institutions offer various stakeholders a symbol that something is being done about a particular problem—a symbol that may be accepted even while the underlying threat continues.

If consensual institutions constitute symbolic policy, then there should be a higher level of consensus about watershed issues among NEP stakeholders, in comparison to stakeholders from watersheds without the NEP.   In terms of attitude change, the symbolic policy and political contracting frameworks make the exact same prediction. However, is symbolic policy is correct, then consensus should not be followed be cooperative behavior. Consensus is enough to symbolize progress and purchase political quiescence, and people are not willing to incur the transaction costs of actually changing ingrained patterns of behavior.

Incorporating Stakeholder Belief-Systems

To isolate the effect of the NEP on consensus and cooperation, my analysis will control for elements of stakeholders' belief-systems that may influence their perceptions of consensus and the decision to cooperate. Sabatier and Jenkin-Smith's (1993, 1999) Advocacy Coalition Framework argues that policy decision-making is structured by belief-systems consisting of policy-core beliefs that define normative preferences about policy-making, and secondary beliefs about specific aspects of a policy arena.

First, I explain the role of what I call "collective-action beliefs", which are secondary beliefs about the attributes of the estuary action arena that reflect the benefits and transaction costs of collective-action. I argue people learn to rely on these beliefs as heuristics for evaluating options and making decisions in collective-action situations (see Lubell 2002b for a extended theoretical argument and test).[4] Following Ostrom (1999; Ostrom, Gardner, and Walker 1994), I group "collective-action beliefs" into beliefs about attributes of watershed problems, the institutional process, and other actors.

Features of watershed problems that increase or decrease uncertainty affect the likelihood of cooperation. According to North (1990), uncertainty about the attributes of resources being exchanged is the primary source of transaction costs. Stakeholders are less likely to cooperate when addressing spatially dispersed problems that implicate a wide variety of actors, which makes it difficult to identify causal relationships and creates problems of hidden information and behavior (Schlager, Blomquist, and Tang 1994). Conversely, adequate scientific knowledge about the problem increases cooperation by reducing uncertainty.

Ostrom (1990) identifies several characteristics of governance institutions that increase their chances of successfully managing common-pool resources. Institutions that reduce the likelihood of expanding conflict from the local setting to broader political or administrative arenas are more likely to produce cooperation. Similarly, stakeholders are more likely to cooperate when they believe the process is fair in terms of representing their particular interests and avoids domination by other interests. Perceived increases in agency commitment or budget resources will also reduce transaction costs, therefore increasing cooperation. With regard to beliefs about other actors, if stakeholders trust others to fulfill promises made in the context of political contracting, they are more likely to cooperate. The role of trust in reducing transaction costs is well established by the social capital literature (Coleman 1990; Putnam 1993).

Second, I control for three important policy-core beliefs:

- Environmentalism: Preference for environmental protection over economic development and a general belief in the value of biodiversity.
- Conservatism: Preference for private property rights and a belief that the market is superior to government for determining allocation of natural resources.
- Inclusiveness: Preference for maximum public participation in policy-decisions.

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[4]Note that all of these beliefs are measured in the first wave of the NEP panel survey while agreement and cooperation are measured in wave two, thus eliminating the possibility of reciprocal causation.

When people are forming specific evaluative beliefs (e.g., consensus) about some attitude object and the making behavioral decisions (e.g., cooperation) on the basis of those beliefs, policy-core beliefs act as cognitive filters that overweight information consistent with prior expectations and under inconsistent information. I expect environmentalism and inclusiveness to be positively related to cooperation, and conservatism to be negatively related. This follows the traditional expectations regarding conflict between economic and environmental interests (Sabater and Jenkin-Smith 1993; Lubell 2002b offers a more complex set of hypotheses).

There are two strategies for estimating the effect of the NEP on consensus and cooperation, while taking into account the structure of belief-systems. One strategy is to assume that the NEP has a *direct* effect on consensus and cooperation, while controlling for collective-action beliefs and policy-core beliefs. The direct effects strategy suggests entering all variables simultaneously into a linear regression model. However, the NEP and policy-core beliefs may also affect collective-action beliefs. For example, political contracting theory predicts consensual institutions should build trust and be perceived as more fair. The ACF argues policy-core beliefs affect information processing about characteristics of the estuary action arena, and thus constrain the formation of collective-action beliefs. If one assumes collective-action beliefs are a function of both the NEP and policy-core beliefs, then the NEP will have an *indirect* effect on consensus and cooperation. The indirect strategy suggests developing a system of equations that simultaneously estimates the direct effects of the NEP on consensus/cooperation, and also the indirect effects of the NEP on the relevant collective-action beliefs. Thus, the *gross* effect of the NEP represents a combination of the direct effect on consensus/cooperation, and the indirect effect through collective-action beliefs. The indirect modeling strategy can also identify the collective-action belief through which the NEP has the strongest indirect influence. I will estimate models using both the direct and indirect strategies in the following analyses.

Research Design and Analysis

The quasi-experimental research design consists of a panel telephone survey of a sample of 1515 stakeholders from twelve estuaries with the National Estuary Program and ten estuaries without the national estuary program.[5] The first wave of the panel was conducted from March to

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[5]The NEP sample frame was constructed by combining lists of stakeholders that were constructed by individual NEP coordinators and EPA's Office of Wetlands, Oceans, and Watersheds. I randomly selected a maximum of 100 respondents from each list; all stakeholders were included from lists with less than 100 names. The non-NEP estuaries did not have similar lists of stakeholders, and hence required a different strategy. I first contacted the

July 1999, and the second wave was completed from March to June 2001, for an approximately two-year interval between waves. The total response rate in Wave 1 was 64% for NEP estuaries and 65% for non-NEP estuaries. Wave 2 attempted to re-contact all respondents from Wave 1, and the response rates were 77% for NEP estuaries and 81% for non-NEP estuaries. A total of 840 respondents completed both waves of the panel.

Because many policy actors switch jobs or relocate within a two-year time span, ineligible respondents constituted the majority of Wave 2 dropouts.[6] I also interviewed replacements if they were available. Measurements of the independent variables for replacements are all from Wave 2, and I include a dummy variable in the regression to indicate replacements.[7]

Variable Construction

The analysis focuses on two central dependent variables, consensus and cooperation. Both of these variables are measured during Wave 2 of the panel survey. The measure of consensus is based on perceptions of agreement, while the measure of cooperation is based on a range of reported cooperative behaviors. If the political contracting perspective is correct, then NEP stakeholders should exhibit higher levels of both consensus and cooperation in comparison to non-NEP stakeholders. If symbolic policy is correct, then NEP stakeholders should have higher levels of consensus, but not cooperation—people feel good, but act no differently.

The consensus scale averages responses to six disagree-agree questions ranging from [0=disagree, 10=agree], which measure perceived agreement on the following dimensions: causes of estuary problems, severity of estuary problems, required research, best policy tools, economic consequences of policy, and environmental consequences of policy (Cronbach's alpha= .86). The underlying assumption is that consensus occurs when everybody

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federal and state government agencies and interest groups in the estuaries to develop a list of 10-20 "seed" interviews. I then contacted stakeholders on this list by telephone and in addition to generating substantive information about policies in each estuary, the interviews were designed to generate the names of up to three additional stakeholders, who we interviewed in a second round. This snowball process continued until no new names were generated or the target of 30 interviews in each estuary area was completed.

[6] Even if Wave 1 respondents had moved to another job between panels, they were considered eligible respondents if they reported being active on estuary issues in the past 12 months. If the Wave 1 respondent had changed jobs and was no longer active on estuary issues, I attempted to interview their replacement. If there was no replacement, the case was dropped from the study as an ineligible respondent for Wave 2. The purpose of this criterion was to maintain as much consistency across individuals as possible.

[7] The significance and direction of the regression coefficient do not differ in any important ways if the analysis excludes all replacements—of course, eliminating replacements raises standard errors. Hence, I choose to include the replacements in the interest of retaining as much information as possible.

"agrees to agree". The cooperation scale counts the number of "yes" answers to questions about whether or not in the last two years the respondent had collaborated with other stakeholders in seven possible activities: providing information to another organization, sharing personnel, joint research projects, joint funding proposal, interagency taskforce, memorandum of understanding, shared permitting/regulatory activities. Following the convention of measurement theory, I designed the cooperation scale for maximum discrimination by including very cheap and informal modes of cooperation (e.g., information sharing) along with very costly and formal modes (e.g., memorandums of understanding). Accordingly, the frequency of cooperative behaviors declines as the mode of cooperation becomes more formal.

The variables measuring collective-action beliefs are also from the survey, with all variables measured at Wave 1 with 11-point Likert scales (see Appendix A for exact question wording). For each independent variable, I will indicate the hypothesized direction of influence on consensus/cooperation. Stakeholder beliefs about characteristics of estuary problems are measured by perceptions of problem *spatial dispersion* (-) in terms of the number of people who must change their behavior to improve estuary problem, and the perceived adequacy of *scientific knowledge* (+). Questions about institutional processes measure beliefs about the necessity of *conflict expansion* (-) for solving estuary problems, the *procedural fairness* (+) of the collective-choice process (2-item scale; Cronbach's alpha= .76), whether or not or *economic* (-) interests dominate the collective-choice process, whether *agency support* (+) has increased in the last two years, and if there has been a *budget increase* (+) in the last two years.[8] *Trust* (+) is measured by asking respondents whether or not they trust other stakeholders to fulfill their commitments made in the context of the management plan.

I measure three policy-core beliefs: *conservatism* (-), *environmentalism* (+), and *inclusiveness* (+). Since these policy-core beliefs should be relatively stable across time in comparison to collective-action beliefs, I average the responses to the policy-core belief questions from Wave 1 and Wave 2. As I will discuss in the next section, I examine both a direct and indirect strategy to estimate the effects of the policy-core beliefs. To facilitate comparison across scales, all variables have been linearly transformed to a [0,1] range.

Regression Analysis

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[8] Agency support and budget increase are measured in Wave 2.

The baseline strategy I use to estimate the effect of the NEP utilizes the following simple

OLS regression, estimated separately for each dependent variable:

1) **Consensus/Cooperation$_t$ = f(NEP dummy variable, collective-action beliefs$_{t-1}$, policy-core beliefs$_{average: t/t-1}$, replacement dummy variable)**

In this model, the estimated slope coefficient for the NEP dummy variable captures the

difference in levels of consensus/cooperation between NEP and non-NEP stakeholders. If the

political contracting theory is correct, this slope coefficient should be significant and positive in

the consensus and cooperation models.[9] If symbolic policy is correct, the slope coefficient

should be significant and positive in the consensus model, but not the cooperation model. Note

the time subscripts, which indicate that collective-action beliefs are lagged independent variables

and therefore minimize the possibility of reciprocal causation.[10]

However, as I discussed in the section on belief-systems, there are theoretical reasons to

expect the NEP and policy-core beliefs to directly influence collective-action beliefs, and

therefore to indirectly influence consensus/cooperation. Hence, I also estimate eight regression

equations with each significant collective-action belief from equation 1 as a dependent variable,

using policy-core beliefs, the NEP dummy, and the dummy indicator for Wave 2 replacements as

independent variables:

2) **Collective-action beliefs$_{t-1}$= f(NEP, policy-core beliefs$_{average: t/t-1}$, replacement dummy variable)**

In essence, I am estimating a fully recursive systems of equations that does not have any

reciprocal causality. Fully recursive systems assume the error terms for each individual equation

in the system of equations are uncorrelated with one another. Furthermore, I am assuming

collective-action beliefs in Wave 1 do not have an effect on the NEP or policy-core beliefs

(because policy-core beliefs are the superior elements of the belief-system hierarchy). As noted

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[9] There is the possibility that non-random selection would artificially inflate the NEP coefficient because EPA may select estuaries where consensus and cooperation is already high. Lubell (2000b) uses treatment effects regression to test for non-random selection, and does not find any significant selection effects. I will estimate treatment effects regression models of this data at a later time.

[10] Of course, it is very likely that reciprocal causation does occur; that is, favorable changes in collective-action beliefs leads to more cooperation/consensus, which in turn leads to favorable change in collective-action beliefs. This is part of the "virtuous circle" that occurs as cooperation emerges over time (Putnam 1993). Finkel and Muller (1998) demonstrate the existence of the reciprocal influence between beliefs and behavior in the case of collective protest. Unfortunately, I do not have measures of consensus/cooperation from Wave 1, and therefore cannot estimate the reciprocal relationship between consensus/cooperation in the manner of Finkel and Muller (1998). Estimating the reciprocal relationship remains a key priority for further research in this area.

by Greene (2000) and Gujarati (1995), fully recursive systems of equations are identified and can be estimated with OLS regression.[11]

Because all variables are linearly transformed to a [0,1] range, when the regression coefficients are multiplied by 100, they can be interpreted as the change in the expected value (expressed as an absolute percentage of the range of the dependent variable in the sample) of consensus/cooperation moving across the entire range of the explanatory variable. For example, if the expected value of consensus equals .10 when trust = 0 and the slope coefficient for trust equals .06, then ceteris paribus the expected value of perceived effectiveness when trust =1 will be .16 (.10 + .06=.16, or an absolute change of 6% points).

Results

Table 1 reports the results of the structural models for both consensus (column 2) and cooperation (column 4). The most important results from these models are that the NEP does not have a significant *direct* influence on consensus, and has a significant, direct, *negative* influence on reported levels of cooperative behavior. Controlling for collective-action beliefs, NEP and non-NEP stakeholders have the same level of agreement on estuary issues, but have 6% point lower rate of cooperation. Note also that nearly all the collective-action beliefs are significant at least at the p<.10 level, and in the correct direction.

Similar to Lubell (2000b), several collective action beliefs that reflect the benefits and transaction costs of collective action also have significant effects on overall consensus. Consensus is higher when stakeholders perceive scientific knowledge as adequate (12% increase), policies as fair (15% increase), trust is higher (6% increase), higher budgets (5% increase), and more support from agency leaders (4% increase). Consensus is lower if economic interests are viewed as dominant (4% decrease), or there is a need to expand conflict outside the estuary (6%) decrease. Environmentalists are also likely to report higher levels of consensus.

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[11] Of course, some might question the rather heroic assumption of uncorrelated errors between equations especially with survey data. Hence, I also estimated three-stage least square (3SLS) models using Wave 2 measurements of collective-action beliefs in the structural equations for the consensus and cooperation models. Then, I used lagged values of the collective-action beliefs in the secondary equations to create instruments for the collective-action beliefs in the original model. The lagged values served as exclusion restrictions. However, this strategy also requires two possibly heroic assumptions: 1) the lagged values of the independent variables have no effect on consensus/cooperation (which is particularly heroic given the findings reported in Table 1), and 2) there is no reciprocal causation between consensus/cooperation and collective-action beliefs measured in Wave 2. Fortunately, the 3SLS model leads me to the same substantive conclusions about the effects of the NEP: the NEP indirectly effects consensus by changing collective-action beliefs, and does not effect cooperation at all. The 3SLS results are available from the author upon request.

Interestingly, the only collective-belief that significantly affects cooperative behavior is procedural fairness. As I will discuss in more detail later, cooperative behavior appears to be a much more rigid phenomena that consensus.

In addition, Table 1 reports the reduced form models for consensus (column 3) and cooperation (column 5) that would be produced by substituting all of the structural equations for the collective-action beliefs into the structural equations for consensus/cooperation (i.e., substituting equation 2 above into equation 1, and then estimating the coefficients for all exogenous variables). The slope coefficients for the NEP variable in the reduced form models capture the gross effect of the NEP, which incorporates any indirect effect of the NEP through collective-action beliefs. In the reduced form models, the NEP coefficient is significant and positive in the consensus model, increasing the level of consensus by 8% points. However, the NEP coefficient is insignificant in the reduced form cooperation model. These gross effects are initial evidence for the symbolic policy theory—NEP stakeholders exhibit more consensus, but overall levels of cooperation are no different. However, the differences between the structural and reduced form models in Table 1 suggest the NEP may have important indirect effects worth examining.

Table 2 reports results for the structural models of collective-action beliefs, which I estimated for each of significant collective-action belief in the consensus model (Table 1, column 2). As can be seen, the NEP has a significant direct effect in all eight models. Not surprisingly given the comparative institutional analysis strategy of the research design, the largest direct effects are on indicators of institutional processes: increased beliefs about procedural fairness by 14%, decreased beliefs about economic domination by 16% and the necessity to expand conflict by 14%. Policy-core beliefs also exhibit significant explanatory power in every model, although the effects are less consistent than for the NEP. Both symbolic policy and the political contracting would predict these positive changes in collective-action beliefs—the key question is whether attitude change is translated into behavior.

To estimate the size of the indirect effects of the NEP on consensus, Table 3 calculates the product of the NEP slope coefficient from each model in Table 2, multiplied with the slope coefficient for the relevant collective-action belief in Table 1. For example, the indirect influence of the NEP through scientific knowledge is (.07)*(.12)= .008. As can be seen, the indirect influences are small because even if the NEP has a substantial influence on a particular

collective-action belief, that influence must be filtered through the effect of that collective-action belief on consensus. Regardless of the absolute size of the indirect effects, it is obvious that the largest indirect effects again operate through indicators of institutional processes: fairness, economic interest domination, and conflict expansion. In addition, the indirect influence through increasing scientific knowledge is also relatively large. As can be seen, the total indirect effects are close to the gross effects of the NEP displayed in the reduced form equation in Table 1.[12] The consensual governance style of the NEP indirectly produces consensus by changing stakeholders' beliefs about the fairness and conflict resolution capacities of the political contracting process. However, the indirect effects of the NEP are limited to consensus because collective-action beliefs do not have a strong influence on cooperation, and therefore do not translate the belief changes attributable to the NEP into changes in cooperative behavior.

Besides the negative effect of the NEP on cooperation in the reduced form model in Table 1, two other aspects of the analysis provide further support for the symbolic policy framework. First, there really is no point in estimating the indirect effects of the NEP on cooperation because collective-action beliefs do not influence cooperation (with the exception of fairness, where the NEP indirectly increases cooperation by 2% points). In fact, the structural model for cooperation in Table 1 does a very poor job of explaining cooperation at all. Clearly, there are other influences on cooperative behavior that continue to operate despite belief-systems, and despite the presence of a consensual institution that may provide a forum for the evolution of cooperation. Research on environmental activism has also demonstrated a substantial "implementation gap" between attitude change and behavior—citizens are willing to say they support the environment, but report a much lower level of activism behaviors like recycling, joining an environmental group, or protesting. Words are cheap; actual behavior forces people to realize the costs of cooperation. Similarly, the costs of cooperation in an elite policy arena may be high because there are collections of formal rules and informal norms that constrain behavior change, at least for the types of behaviors I measure in this study.

Second, an examination of the differences between means for each individual item of the cooperation scale reveals that the higher level of cooperation in non-NEP estuaries is attributable to one item—shared permitting and regulatory activities. 55% of non-NEP respondents report

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[12]If I had included all collective-action beliefs in Table 1 in the calculations for Table 3, the numbers would be identical.

shared regulatory activities, compared to 44% of NEP respondents (two-tailed t-test = 2.84, p<.01, unequal variances assumed). Non-NEP respondents appear to be cooperating more on policy activities generally associated with command-and-control institutions. One possible interpretation of this intriguing difference is that the presence of consensual institutions actually reduces the level of regulatory activity in an estuary, which would be consistent with symbolic policy. Reducing regulatory activity is also consistent with the rhetoric on consensual institutions, which are often portrayed as mechanisms to avoid the economic costs of additional regulations without compromising environmental benefits or other policy goals. However, another interpretation is that estuary stakeholders have shifted their resources into a different vector of cooperative behavior, one that I have not adequately measured in the context of this survey. I will return to this point in the conclusion.

Conclusion

My analyses suggest consensual institutions indirectly increase levels of consensus by changing collective-action beliefs, but may not change levels of cooperative behavior. Symbolic policy would predict exactly this pattern—creating the perception of consensus, without the behavioral follow-through. Cooperative behavior may be linked to a set of political, economic, or social constraints that insulate it from both changes in beliefs and changes in institutions. These results provide a serious warning for proponents of consensual institutions—they should not be content with only reports of positive changes in stakeholder attitudes and relationships. The success of consensual institutions must be demonstrated with behavioral changes, and then with actual environmental outcomes. From the normative policy perspective, symbolic outcomes should be avoided. From the political perspective, symbolic policy may be a useful mechanism for smoothing ruffled interest group feathers without paying the costs of significant progress.

However, the limits of this study must be kept clearly in mind. Watershed partnerships and the NEP represent only one species of consensual institution, and I only measure a limited range of cooperative behaviors. Hence, while the analysis provides important circumstantial evidence for symbolic policy, the findings in this study cannot be considered the "smoking gun" that condemns consensual institutions. The more important contribution of this study is identifying a theoretical framework—symbolic policy—that can be fruitfully applied to understand the criticisms of consensual institutions. Until now, the criticisms were not

integrated by any theoretical framework and could be classified as the typical political "grenade lobbing" that occurs with any new policy. On the other hand, the political contracting theory has been fruitfully used to discuss the benefits since early on in the study of consensual institutions (Lubell et al. 2002; Ostrom 1990; Weber 1998). From an epistemological perspective, having two theoretical paradigms with competing predictions leads to more research progress.

Consequently, more research is needed to confirm, disconfirm, or refine the conclusions of this analysis. The most important question is whether or not my measures of cooperative behavior are really capturing the correct behaviors. Perhaps consensual institutions lead to new forms of cooperative behavior that are outside the patterns of collaboration that developed in the traditional, adversarial environmental policy institutions. The fact that non-NEP stakeholders cooperate more on regulatory activities suggests NEP stakeholders may have discovered a new set of cooperative behaviors that accomplish the same policy goals of regulation, but in a less coercive manner. Although I relied on a great deal of case study work in the NEP and Bardach (1998) on interagency collaboration to identify the range of cooperative behaviors, I may have left out these new forms of behavior.

Alternatively, it is possible that NEP and non-NEP stakeholders are engaging in the same types of cooperation, with the same frequency, but that each instance of cooperation has a higher value in NEP than in non-NEP estuaries. For example, participation on a joint research project may be more productive in the high trust situations produced by consensual institutions rather than the low trust context of adversarial institutions. I use frequency measures of cooperation that would not capture the value-added from each instance. However, if the value of collaboration is higher in consensual institutions or if new forms of cooperative behaviors are occurring, it should be possible to attribute a change in environmental outcomes to consensual institutions. Hence, an important remaining research task (besides trying to develop better measurements of cooperation) is to compare changes in environmental outcomes in watershed conflicts with and without consensual institutions. If consensual institutions really do not improve environmental quality, or at least slow down the rate of decline, then the label of symbolic policy is well deserved.

Unless otherwise noted, all variables are measured on a disagree/agree scale with integer response values ranging between [0,10], with 0 = strongly disagree and 10 = strongly agree. For purposes of analysis, all variables were linearly transformed to a [0,1] range.

Dependent Variables

Consensus

How would you characterize the level of agreement among estuary stakeholders on (variable averages the responses to the following statements on 0-10 disagree/agree scale):

- The causes of estuary problems.
- The severity of problems.
- The amount and type of research needed.
- The best policy tools to address problems.
- The economic consequences of estuary policies.
- The environmental consequences of estuary policies.

Cooperation

In the past two years, have you or your organization (variable sums number of "yes" answer to following statements):

- Shared information with another organization.
- Shared personnel with another organization.
- Collaborated on one or more joint research projects.
- Collaborated on one or more joint grant or funding proposals.
- Participated in the development of a new interagency taskforce or partnership.
- Signed a Memorandum of Understanding or Agreement with another organization to formalize commitments to estuary projects?
- Shared permitting or regulatory activities relating to the estuary.

Independent Variables: Beliefs about Problem Characteristics

Spatial Dispersion

Would you say that a full resolution of the problem would require changes in the activities or behavior of a small number of citizens and businesses, would it require changes of almost everyone in the estuary, or somewhere in between? 0= Only a small number would need to change, 10= Almost everybody would need to change.

Scientific Knowledge

On average, do you perceive the level of scientific understanding about the causes and causes of problems in your estuary to be very inadequate, very adequate, or somewhere in between? 0 = Scientific understanding is very inadequate, 10= Scientific understanding is very adequate.

Independent Variables: Beliefs about Institutional Processes

Conflict Expansion

When conflicts arise, do you think that you can resolve conflicts to the satisfaction of your organization with the partnership, or do you think your organization will need to shift the dispute to courts, political, or other administrative arenas? 0= Resolve conflict inside partnership; 10= Shift disputes outside partnership.

Procedural Fairness (alpha= .76)

1. Overall, the decision-making process in the partnership is fair to all stakeholders. Disagree/Agree.
2. My organization's interests and concerns are adequately represented in the partnership. Disagree/Agree.

Economic Domination

Economic interest groups have an undue influence on partnership decisions. Disagree/Agree.

Budget Increase

In the past two years in your estuary, do you think that expenditures on all estuary or watershed protection efforts have declined significantly, declined slightly, not changed, increased slightly, or increased significantly? Higher numbers indicate increase.

Agency Support

How has the support for estuary policies among agency or administrative leaders in your estuary changed in the last two year? Has it declined significantly, declined slightly, not changed, increased slightly, or increased significantly? Higher numbers indicate increase.

Independent Variables: Beliefs about Other Stakeholders

Trust

Thinking about the range of contacts you have had with other stakeholders, do you completely trust these stakeholders to fulfill the promises and obligations made on each issue in the context of the partnership, completely distrust them, or somewhere in between? 0= Completely distrust, 10= Completely trust.

Independent Variables: Policy-core Beliefs

Environmentalism

In general, how would you describe your policy orientation on estuary issues when tradeoffs between environmental protection and economic development are important? 1-7 scale; 1= pro-development, 7= pro-environment.

Conservatism (alpha = .70)

1. Preserving the rights of individual citizens is more important than protecting the environment. Disagree/Agree.

2. In general, government agencies and regulations intrude too much on the daily lives of private citizens. Disagree/Agree.

Inclusiveness

Maximizing the scope of public participation in environmental policy improves policy effectiveness. Disagree/Agree.

References

Bardach, Eugene. 1998. *Getting Agencies to Work Together: The Practice and Theory of Managerial Craftsmanship*. Washington, DC: Brookings Institution Press.

Coglianese, Cary. 1997. "Assessing Consensus: The Promise and Performance of Negotiated Rulemaking." *Duke Law Journal* 46: 1255.

Coleman, James. 1990. *Foundations of Social Theory*. Cambridge, MA: Harvard University Press.

Dunlap, Riley E. and Angela G. Mertig, ed. *American Environmentalism: The U.S. Environmental Movement 1970-1990*. New York, NY: Taylor and Francis.

Downs, Anthony. 1972. "Up and Down with Ecology: The Issue-Attention Cycle." *Public Interest* 28: 38-50.

Edelman, Murray. 1971. *Politics as Symbolic Action: Mass Arousal and Quiescence*. New York, NY: Academic Press.

--1964. *The Symbolic Uses of Politics*. Urbana, IL: University of Illinois Press.

--1960. "Symbols and Political Quiescence." *American Political Science Review* 54: 695-704.

Eggertsson, Thrainn. 1990. Economic Behavior and Institutions. New York, NY: Cambridge University Press.

Finkel, S. E., and E. N. Muller. (1998) Rational choice and the dynamics of collective political action: Evaluating alternative models with panel data. *American Political Science Review, 92,* 37-49.

Fiorino, Daniel J. 1999. "Rethinking Environmental Regulation: Perspectives on Law and Governance." *Harvard Environmental Law Review* 23: 441.

Gordon, H.S. 1954. "The Economic Theory of a Common-Property Resource." *Journal of Political Economy* 62: 124-42.

Greene, William H. 2000. *Econometric Analysis, 4th Edition*. Upper Saddle River, NJ: Prentice-Hall.

Gujarati, Damodar N. 1995. *Basic Econometrics, 3rd Ed.* New York, NY: McGraw Hill.

Heckathorn, Douglas D., and Steven M. Maser. 1987. "Bargaining and the Sources of Transaction Costs: The Case of Government Regulation." *Journal of Law, Economics, and Organization* 3: 69-98.

John, DeWitt. 1994. *Civic Environmentalism*. Washington, DC: Congressional Quarterly Press.

Johnson, Bart R., and Ronald Campbell. 1999. "Ecology and Participation in Landscape-Based Planning Within the Pacific Northwest." *Policy Studies Journal* 27: 502-529.

Kagan, Robert A. 1999. "Trying to Have it Both Ways: Local Discretion, Central Control, and Adversarial Legalism in American Environmental Regulation." *Ecology Law Quarterly* 25: 718-732.

Kenney, Douglas S. 2000a. "Assessing the Effectiveness of Watershed Initiatives: The Current State of Knowledge." Boulder, CO: Natural Resources Law Center, University of Colorado School of Law.

--2000b. "

Langbein, Laura I., and Cornelius M. Kerwin. 2000. "Regulatory Negotiation Versus Conventional Rulemaking: Claims, Counter-Claims, and Empirical Evidence." *Journal of Public Administration Research and Theory* 10: 599-632.

Libecap, Gary. 1989. *Contracting for Property Rights*. New York: Cambridge University Press.

Lubell, Mark. 2002a. "Environmental Activism as Collective Action." Forthcoming, *Environment and Behavior*, July 2002.
--2002b. "Environmental Governance, Belief Systems, and Perceived Policy Effectiveness." Manuscript.
--2000. "Cognitive Conflict and Consensus Building in the National Estuary Program." *American Behavioral Scientist* 44: 629-648.

Lubell, Mark, Mark Schneider, and John T. Scholz, and Mihriye Mete. 2002. "Watershed Partnerships and the Emergence of Collective Action Institutions." *American Journal of Political Science* 46: 148-163.

Marsh, Lindell L. and Peter L. Lallas. 1995. "Focused, Special-Area Conservation Planning: An Approach to Reconciling Development and Environmental Protection." In *Collaborative Planning for Wetlands and Wildlife: Issues and Examples*, ed. Douglas R. Porter and David A. Salvesen. Washington, DC.: Island Press.

Miller, Gary. 1992. *Managerial Dilemmas: The Political Economy of Hierarchy*. New York, NY: Cambridge University Press.

North, Douglass C. 1990. *Institutions, Institutional Change, and Economic Performance*. New York, NY: Cambridge University Press.

Ostrom, Elinor. 1999. "Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework." In Paul Sabatier, ed., *Theories of the Policy Process*. Boulder, CO: Westview Press.
--1990. *Governing the Commons*. New York, NY: Cambridge University Press.

Ostrom, Elinor, Roy Gardner, and James Walker. 1994. *Rules, Games, and Common-Pool Resources*. Ann Arbor, MI: University of Michigan Press.

Putnam, Robert. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.

Rabe, Barry G. 1986. *Fragmentation and Integration in State Environmental Management*. Washington, DC: Conservation Foundation.

Sabatier, Paul, and Hank Jenkins-Smith ed. 1999. "The Advocacy Coalition Framework: An Assessment." In Paul Sabatier, ed., *Theories of the Policy Process*. Boulder, CO: Westview Press.
--1993. *Policy Change and Learning: An Advocacy Coalition Approach*. Boulder, CO: Westview Press.

Sabatier, Paul and Matthew Zafonte. 1997. "Are Bureaucrats and Scientists Members of Advocacy Coalitions? Evidence from an Intergovernmental Water Policy Subsystem." Typescript.

Schlager, Edella, William Blomquist, and Shui Yan Tang. 1994. "Mobile Flows, Storage, and Self-Organized Institutions for Governing Common-Pool Resources." *Land Economics* 70: 294-317.

Taylor, Michael, and Sara Singleton. 1993. "The Communal Resource: Transaction Costs and the Solution of Collective Action Problems." *Politics and Society* 21: 195-214.

Thibaut, John, and Laurens Walker. 1975. *Procedural Justice: A Psychological Analysis*. Hillsdale, NJ: Erlbaum.

Weber, Edward P. 1998. *Pluralism by the Rules: Conflict and Cooperation in Environmental Management*. Washington, D.C.: Georgetown University Press.

Williamson, Oliver E. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York,NY: Free Press.

--.1985. *The Economic Institutions of Capitalism.* New York, NY: Free Press.

Wilson, James Q. 1980. *The Politics of Regulation*. New York, NY: Basic Books.

Wooley, John T., and Michael Vincent McGinnis. 1999. "The Politics of Watershed Policymaking." *Policy Studies Journal* 3: 578-594.

Yaffee, Steven L., Ali F. Phillips, Irene C. Frentz, Paul W. Hardy, Sussanne M. Maleki, and Barbara E. Thorpe. 1996. *Ecosystem Management in the United States: An Assessment of Current Experience.* Washington, DC: Island Press.

Table 1: OLS Models for Consensus and Cooperation

	Consensus		Cooperation	
	Structural Model (N=659)	Reduced Form *(N=808)*	*Structural Model (N=661)*	*Reduced Form (N=814)*
Collective-Action Beliefs				
Scientific Knowledge	.12 (.03)**	---	-.01 (.05)	---
Spatial Dispersion	.02 (.02)	---	.04 (.04)	---
Procedural Fairness	.15 (.03)**	---	.12 (.05)*	---
Economic Interest	-.04 (.02)*	---	-.01 (.04)	---
Domination				
Conflict Expansion	-.06 (.02)**	---	.01(.04)	---
Budget Increase	.05 (.02)**	---	.08 (.04)^	---
Agency Support	.04 (.03)^	---	.02 (.05)	---
Trust	.06 (.03)*	---	.05 (.06)	---
Policy-Core Beliefs				
Conservatism	.01 (.03)	-.03 (.03)	-.11 (.06)^	-.13 (.05)*
Environmentalism	.14 (.03)**	.10 (.03)**	.04 (.06)	.03 (.05)
Inclusiveness	.02 (.03)	.06 (.03)*	.04 (.05)	.07 (.04)^
Institution				
NEP Estuary	.01 (.01)	.08 (.01)*	-.06 (.03)*	-.02 (.02)
Replacement Respondent	-.02 (.01)	-.01 (.01)	.05 (.10)^	.04 (.03)^
Constant	.22 (.05)**	.41 (.04)**	.48 (.09)**	.62 (.06)**
Model Fit	R^2=.27	R^2=.07	R^2=.05	R^2=.02
	F = 18.15**	F=12.72**	F=2.66**	F=3.91**

Note: All entries in cells are unstandardized OLS regression coefficients, with standard errors in parentheses. Two-tailed hypothesis tests of coefficient=0: **$p<.01$, *$p<.05$, ^$p<.10$

Table 2: Structural Models for Collective-Action Beliefs

	Independent Variables				
	NEP	*Conservatism*	*Environmentalism*	*Inclusiveness*	*R^2*
Dependent Variables:					
Collective-Action Beliefs					
Scientific Knowledge	.07 (.01)**	-.01 (.04)	.10 (.04)*	.06 (.03)^	.04
Spatial Dispersion	.10 (.02)**	-.22 (.05)**	.19 (.05)**	.11 (.04)**	.12
Procedural Fairness	.14 (.02)**	-.05 (.04)	-.02 (.04)	.10 (.03)**	.09
Economic Interest Domination	-.16 (.02)**	-.12 (.06)*	.22 (.06)**	-.03 (.04)	.12
Conflict Expansion	-.14 (.02)**	-.07 (.07)	.09 (.06)	-.13 (.05)*	.07
Budget Increase	.09 (.02)**	.09 (.05)^	.01 (.05)	0.02 (.04)	.04
Agency Support	.08 (.02)**	.07 (.05)	-.03 (.05)	.07 (.04)^	.04
Trust	.05 (.01)**	-.02 (.04)	-.10 (.04)*	.17 (.03)**	.05

Note: All entries in cells are unstandardized OLS regression coefficients, with standard errors in parentheses. Constants are not reported, but all constants are significantly different from zero. All models include a dummy variable for replacement respondents. All F-tests are significant. Two-tailed hypothesis tests of coefficient=0: **$p < .01$, *$p < .05$, ^$p < .10$

Table 3: Indirect Effects of the NEP on Consensus

Collective-action beliefs through which NEP operates	Indirect effect
Scientific Knowledge	.008
Procedural Fairness	.021
Economic Interest Domination	.006
Conflict Expansion	.008
Budget Increase	.005
Agency Support	.003
Trust	.003
Total Indirect Effects	.054

Note: Entries in column two are indirect effects computed by multiplying the coefficient for the collective-action beliefs (Table 1, column 1) with the coefficient for the NEP for each collective-action belief in Table 2.